



(a nonprofit
organization,
founded in 1978)
<http://stemd.org>

Foundation for Science and Disability Newsletter

<https://www.facebook.com/groups/360413492800/>

http://www.linkedin.com/groups?gid=4116054&trk=hb_side_g

Student Grant Awardees since 1990

1990	Wendy Pava, Birgit Wolz, Elaine Hall
1991	Kevin Wilkins, Shan Ming Lee
1992	Meghal Antani, Lynn Hanninen, Mara Frohlinger
1993	David Fass, William Hylton
1995	Chris Tromborg
1996	Anne-Michelle Singleton
1997	Leslie Harper
1998	Maura O'Modhrain
1999	Joseph Barbera, Byunggyoo Kim
2000	Jennifer Last
2001	Cassandra Quave
2002	My Lien Nguyen
2003	Mark Woods
2004	Jessica Mahood
2005	Cheryl Fogle
2007	Melodi King
2008	Ryan McKindles
2009	Emma Sacks
2010	Shaun Kane
2011	Lisa Dunning
2012	Kim Yeoman
2013	Naomi Delventhal
2014	Amy Nichols
2015	Rosemarie Figueroa
2016	Heather Page

President's Corner

-Richard Mankin

2/8/17. The year 2016 contained so many unexpected events, it's hard to predict the path FSD should take in 2017 for continuing our mission to promote the integration of students and scientists with disabilities into all activities of the scientific community. Indeed, the upcoming annual meeting in Boston may be quite lively as we consider the pros and cons of different options.

Some discussion has already appeared on our FaceBook page, which has been increasing in postings over the last couple of years, particularly from the younger members. Eventually I suspect most of our activities will be online rather than at annual meetings, but I wholeheartedly recommend the AAAS and FSD annual meetings as places to network, learn new science, and gain inspiration.

Richard Mankin

January 2017

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**The next annual
meeting of FSD is 10:00
AM-12:00 PM, Saturday,
February 18, 2016 in the
Accessibility and
inclusion room at the
Hynes Convention
Center, Boston, MA**

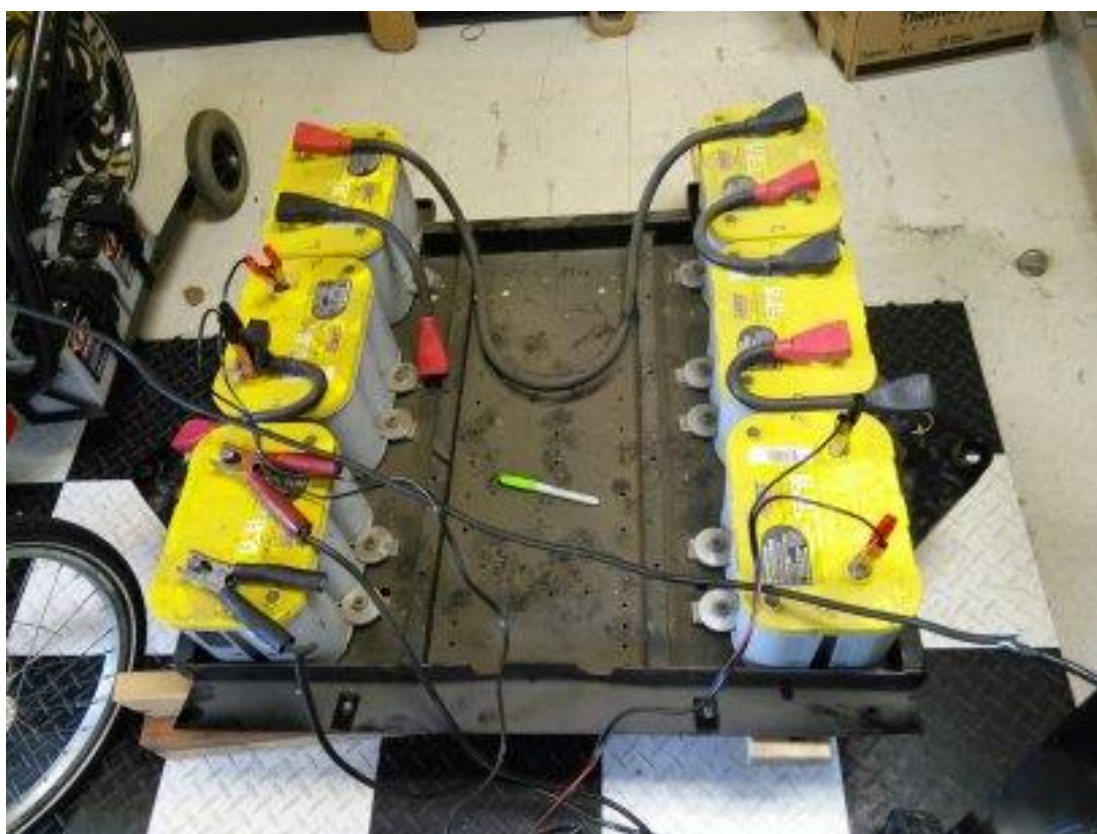
Notes from colleagues

Gilbert Lopez, a graduate student at California State University, Los Angeles, sent us the following note about interesting projects he has been doing recently:

In the past year, I have become very interested in exploring electric motors, aqua -hydroponics, lithium ion batteries, and green technology, and in learning how these technologies impact our carbon footprints for future generations. I hope to understand how current, voltage, electricity and batteries operate and may be best controlled to power solar electric vehicles, and help people with disabilities through the use of engineering.

These interests led me to explore an exhilarating opportunity right on my campus, to convert a 1974 Porsche. I am converting it into a solar/electric classic car – and in so doing learn all about the electrical storage, control, drive, and regenerative braking systems that comprise state-of-the-art electric vehicles plus share this knowledge with my fellow students. I am currently learning and putting into practice all of the safety protocols involved in working with electric vehicles, and my goal is to redesign the Porsche to include some solar panels and a high-efficiency electric motor to drag race.







I also have been designing my own electric car at home out of a 1974 Super Beetle Volkswagen, including a low voltage lithium ion cell battery pack. Power is supplied by an electric motor with regenerative braking. I converted a 1974 Volkswagen from gas to electric/solar. My goal was to charge at the campus charge port next to newer cars. I am currently in the process of connecting a j 1772 port to the campus charge station. I am also taking recycled laptop batteries, and making my own battery packs, similar to what Tesla does

I have been granted an unfurnished lab space in Professor Sam Landsberger's Laboratory for Rehabilitation and Sustainable Engineering. Professor Landsberger has agreed to supervise my work on the electric vehicle. The theme of the space will be 50's - 60's style with a go-green, solar technology ambience.



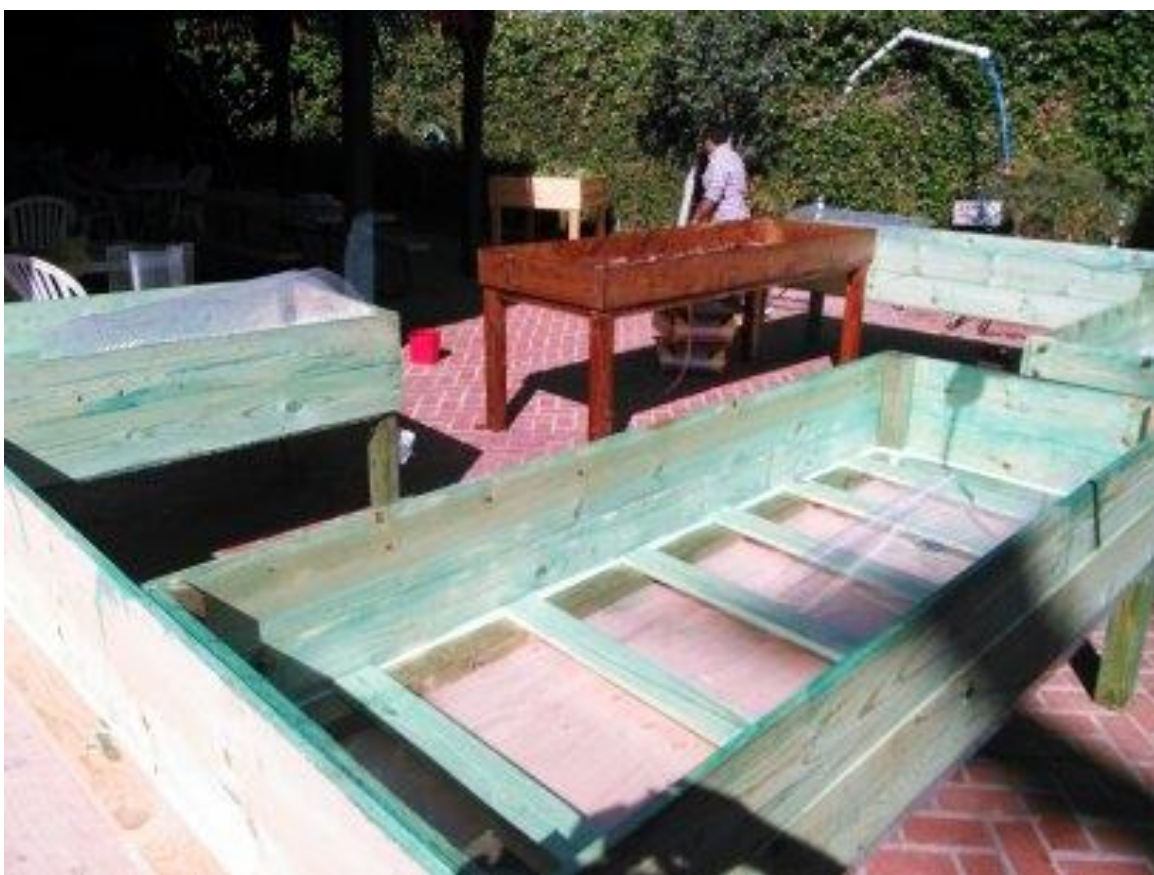
Working in the laboratory for sustainable energies, and disabilities. I was approached by department of disability office professor to install an electronic lifting hoist on a 2016 Honda minivan. The professor had limit mobility, and trouble lifting her wheelchair. I adaptive an engineered a wheelchair lifting arm to her vehicle.

I've had the opportunity to spread in-service community learning via a Mad scientist trailer by transporting engineering projects to local schools.



In research project #2 I designed an aquaponics system for a regional center, El Arca, located in Los Angeles, Lincoln Heights for children, and adults with Downs Syndrome. The design included planters engineered for students to work independent, and wheel chair accessible height planting. The design involved a self-sustainable hydro overhead hanging water system with a 200 gallon tilapia system. The system allows the fish effluents to feed the plants above providing unlimited sustainable supply of food.









Research project #3 involved work in the laboratory for sustainable energies, and disabilities. I was approached by department of disability office professor to install an electronic lifting hoist on van to accommodate people with disabilities. The professor had limit mobility, and trouble lifting her wheelchair. I adaptive and engineered a wheelchair lifting arm to her vehicle to safely lift, and transport her wheelchair with independence.







Gilbert, all of us "other Mad Scientists" hope to hear from you again and wish you the best.

FOUNDATION FOR SCIENCE AND DISABILITY (FSD)

Annual Meeting

10:00 AM -12:00 PM, Saturday, February 13, 2016

Congressional Room, Marriott

Washington, DC

AGENDA

- Call to Order/Introductions:
 President Richard Mankin called the meeting to order and introduced special guest, Emma Sacks. Also were present were Angela Foreman, Imke Durre, Inge Durre, Rory Cooper, Yoshiko Miwa, and Lauren Summers. There was discussion about the activities of members since last year. Angela Foreman discussed her projects as PI and Study Director for Clinical Study for a medical device company in the San Francisco bay area, as well as her activities as Treasurer of FSD. Emma Sacks is the 2009 FSD student grant recipient, conducting research on prenatal care in Zambia. Currently she is on the faculty of Johns Hopkins University. Imke and Inge Durre discussed their work and educational outreach activities in Asheville, NC. Rory Cooper of the University of Pittsburg discussed his recent outreach service as a Lemelson Invention Ambassador. Yoshiko Miwa discussed her recent publications and made comments about the current economic and social status of persons with disabilities in Japan. There are many changes being made to reduce costs and reduce the numbers of persons receiving disability pensions. Yoshiko's statements led to further discussion that, although

new technology is being developed enabling disabled persons to perform work in Japan, the United States, and elsewhere, considerable difficulty remains for persons to find employment. Laureen noted that American Association for the Advancement of Science (AAAS) EntryPoint and other students with disabilities frequently ponder whether to disclose their disability after they begin full-time employment because disability still carries a stigma in the modern workplace. Additional institutional and governmental efforts to “level the playing field” would help remove these lingering barriers.

Laureen Summers discussed setting up a successful 2016 Luncheon for Students with Disabilities after several years when it was not possible to have a luncheon. FSD had provided a \$5000 grant as seed money for support of the luncheon. Laureen also discussed her efforts this year to find new partners and sources of funding for EntryPoint student internship positions. These efforts are ongoing and members of the AAAS Committee on Opportunities in Science are planning to offer suggestions about how EntryPoint can be adapted to operate successfully in the current funding environment. Yoshiko Miwa will be exploring ways in which companies in Japan may be able to provide financial support for the EntryPoint program. Also, development of a national organization of Science, Technology, Engineering, and Mathematics students and professionals with disabilities, perhaps assisted by modern collaboration technology such as AAAS Trellis may provide additional opportunities to develop suggestions and obtain financial support for EntryPoint.

- Minutes - February 13, 2015 (San Jose, CA)

The minutes from the San Jose meeting were approved as posted on the FSD web site.

- Treasurer Report- Angela Foreman

The treasurer report was presented. Angela noted that this is a year when FSD renews its Articles of Incorporation as a nonprofit corporation in Washington DC. The treasurer report is posted in the 2016 FSD Newsletter.

- Science Student Grant Committee Report 2016– Richard Mankin

The Student Grant Committee (Angela Foreman, Imke Durre, Laureen Summers, and Richard Mankin) reviewed 3 applications (4 persons had submitted incomplete applications) and selected Heather Page, a PhD. student in oceanography at the University of California, San Diego, Scripps Institution of Oceanography for the project “Effect of ocean acidification on coral-algal competition and influence of reef benthic communities on seawater carbonate chemistry.”

- New Business

1. There was discussion in relation to the presentations of several travel awards to minority and women graduate students at the 2016 AAAS Minority and Women Scientists and Engineers Breakfast. In addition to receiving recognition, the students presented posters on their research at the annual meeting. A motion was passed that FSD offer to partner with AAAS and the other sponsors of the breakfast to enable the FSD student grant honoree each year to be recognized at the breakfast also. Possibly, funding could be developed also to provide a travel grant enabling the student to attend the AAAS meeting, present a poster, and receive formal recognition at the breakfast. First, it will be necessary to identify all of the organizers and confer with them about feasibility.
2. It was also discussed that future Luncheons for Students with Disabilities might benefit from a preview of Family Science Day activities if one could be arranged with the organizers. Scientists with disabilities present at the luncheon could serve as participants in the activities. A motion was passed that FSD consult with the Family Science Day organizers to determine feasibility. Subsequently it was determined that resources were not available currently to provide a preview of Family Science Day. Consequently, it may be best instead for now to encourage parents to bring their children to the Family Science Day activities on Saturday and Sunday. Scientists with disabilities could be encouraged to participate as mentors. If resources became available, a preview at the luncheon could benefit those who could not arrange personal transportation on the weekend. These possibilities will be pursued during the current year for possible implementation in 2017.

- Adjournment

The meeting adjourned at 12:20 PM. –Respectfully submitted by Richard Mankin, February 14, 2016.

Treasurer Report for 2017 Annual meeting:

Foundation For Science and Disability Treasurer Report

January 1, 2016-December 31, 2017

	2016	2017
Assets:		
Cash on Hand	\$21,469.70	\$16,004.70
Total Assets	\$21,469.70	\$16,004.70
Income:		
Dues	\$ 205	\$ 230.00
Contributions	\$ 342	\$ 135.00
Total Income	\$ 547	\$ 365.00
Expenses:		
Student awards	\$ 1,000	\$1,000.
Total expenses	\$ 1,000	\$ 1,000.
Net Income:	\$ -5,465.00	\$ -635.
Net Balance:	\$16,004.70	\$15,369.70

Foundation for Science and Disability 2018 Ballot

Treasurer (beginning 2018):

_____ Angela Foreman

_____ Write in: _____



Dr. Angela Lee Foreman is a Management Consultant for Sapphire Executives, LLC, focusing on antibodies and other biopharmaceuticals. She teaches Biotechnology courses online through the University of Maryland (UMUC) She received her Ph.D. in Immunology from University of California at Davis.

Please mail or email your selection by April 14, 2017 to

Harold M. Frost, PhD

halfrost@charter.net

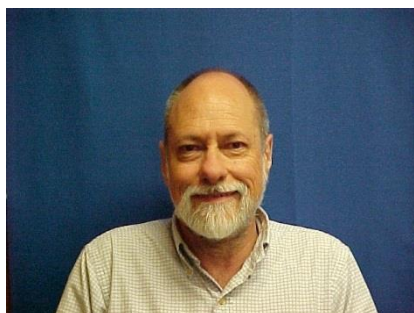
P. O. Box 162

Sheffield, VT 05866

President (beginning 2018):

_____ Richard Mankin

_____ Write in: _____



Richard Mankin is a Research Entomologist at the USDA ARS Center for Medical, Agricultural, and Veterinary Entomology, Gainesville, FL, conducting studies for over 35 years on insect detection and control and insect communication. He has been a member of FSD for about 25 years and has been active in providing research opportunities to students with disabilities.

Please mail or email your selection by April 14, 2017 to

Harold M. Frost, PhD

halfrost@charter.net

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Sheffield, VT 05866

**Foundation for Science
and Disability**

<http://stemd.org>

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The Foundation for Science and Disability (<http://stemd.org>) was founded in 1978 to promote the integration of persons with disabilities into the mainstream of the scientific community. A major focus of FSD has been the removal of barriers that restrict opportunities to develop careers and conduct scientific research. The Foundation also provides grants to students with disabilities who are conducting research in the fields of Science, Technology, Engineering, or Mathematics.

President: Richard Mankin (rmankin1@ufl.edu)

Treasurer: Angela Lee Foreman (angelaleeforeman@yahoo.com)

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http://www.linkedin.com/groups?gid=4116054&trk=hb_side_g

**Foundation for Science and Disability 2017 Dues Notice
Membership Application / Renewal Form**

Dues Schedule:

Student \$5.00

Regular \$25.00

Contribution _____

Total _____

Please make checks out to:

Foundation for Science and Disability

and mail to:

Angela Lee Foreman

Foundation for Science and Disability

P. O. Box 3384

San Leandro, CA 94578

Please list a change of address, if any, and / or list any comments for the Board of Directors below. Also, please forward us your email address if you would like to receive pdfs of future Newsletters.
